power source circuit **28** is powered on. The liquid crystal power source circuit **28** is powered off when stopping the output of the clocks. Rush currents become dispersive or occur with a time difference by the auto-sequence of such energizing of the power source. As is similar to the above, it is feasible to protect the liquid crystal panel constituting the liquid crystal display module, the drivers, and the liquid crystal power source circuit as well.

Incidentally, in the embodiments discussed above, the signal management control units are incorporated into the scan drivers LSI. It is because the number of the I/O signal lines is smaller than that of the signal drivers LSI, and the display frame region is broad. Hence, an allowance for the area of the circuit board mounted with the signal management control units is large. This embodiment has dealt with the display device based on a simple matrix liquid crystal panel. The present invention is not limited to this type of display device but may be applied to an active matrix type liquid crystal display device. In such a case, it is desirable that the signal management control units be incorporated into gate drivers LSI. On this occasion, the gate drivers LSI are controlled so that all the gates are turned on when stopping the clocks. Source drivers are controlled to output the same potential on the data side as that on the common side. All the pixel electric fields are set in a non-application state. Besides, the present invention is applicable not only to the displays but also to display devices whose display quality is deteriorated by the DC drive as can be seen in an electronic device and a plasma display to which the liquid crystal device is, as in the case of a liquid crystal photo arithmetic device, widely applied.

In the respective embodiments discussed above, the liquid crystal module incorporates a means for detecting an abnormality in the signal supplied from the liquid crystal module controller **12** and a means for eliminating this abnormal state of the signal beforehand or afterwards. The following distributive arrangement may, however, be adoptable. Some of components of those means are provided in the liquid crystal module, while the rest of them are provided in the system (controller). For example, the plurality of signals (SP, LP, FR) which may cause a DC driver of the liquid crystal panel are different from each other in terms of frequencies and pulse duties. Therefore, those signals are converted into a single composite signal by use of a non-coincidence gate (Exclusive OR gate). The composite signal is sent back to the system, and the abnormal state is checked by a judgment circuit. The abnormal state is eliminated by an output thereof. An additional arrangement is that the indicator display is effected by using a display body other than that on the side of the LCD module. The following is another adoptable method. The output of the terminal T_n of the scan driver 46_n in the embodiment of FIG. **1** is returned to the system, and the logic and liquid crystal system power sources, are on/off-controlled by fixed procedures (sequence).

Another cause for deteriorating the liquid crystal panel will be elucidated. The deterioration may be caused by the fact that the liquid crystal panel is driven by the effective DC components due to a decay in the output of a specific driver. Deterioration may also be caused by value shifts of the liquid crystal driving voltages V_0–V_5 which are derived from an abnormality in the voltage dividing circuit **28***e* of the liquid crystal power source circuit **28** shown in FIG. **7**. Those abnormal conditions are detectable as fluctuations in the power source current and voltage and, therefore, eliminated by the above-described abnormality eliminating means.

Industrial Applicability:

As discussed above, in a flat display device according to the present invention, when stopping the oscillations of signals transferred from the display control unit, the DC drive of the liquid crystal is forcibly stopped by the signal management control means of the display body module. It is, therefore, possible to prevent deterioration in the display body which is derived from the DC drive. Besides, power source rush currents can be reduced. The present invention is applicable not only to the liquid crystal display device but also to a plasma display device and the like. The present invention is suitable for use with such display devices that the display quality and life-span of the display body are unrestorable due to the abnormality in the driving signals.

What is claimed is:

1. A method of controlling a flat display unit comprising a flat display panel driven in accordance with display driving voltages, display driver means for selecting the display driving voltages supplied to the flat display panel and a display power source circuit for supplying the display driving voltages to the display driver means in response to a power control signal, the method of controlling the flat display unit comprising the steps of:

detecting a logic power voltage activating a logic circuit of the flat display unit by the display driver means;

supplying the power control signal from the display driver means to the power source circuit, said power control signal having a delay time after the detection of said logic power voltage;

supplying the display driving voltages to the display driver means in response to the power control signal by the power source circuit; and

selecting the display driving voltages supplied from the power source circuit to the flat display panel by the display driver means.

2. The method according to claim **1**, further comprising the step of supplying a start signal controlling a start of display to the display driver means after supplying the display driving voltages to the display driver means.

3. A method of controlling a flat display device comprising a flat display panel module unit and a display control unit for supplying control signals to control display of the flat display panel module unit, said flat display panel module unit including a flat display panel driven in accordance with display driving voltages, display driver means for selecting the display driving voltages to the flat display panel and a display power source circuit for supplying the display driving voltages to the display driver means in response to a power control signal, the method of controlling the flat display unit comprising the steps of:

supplying the power control signal to the power source circuit by the display driver means, the power control signal having a delay time after a logic power voltage has been supplied to a logic circuit of the flat display device;

supplying the display driving voltages to the display driver means in response to the power control signal by the power source circuit;

supplying a display start signal controlling a start of the selection of the display driving voltages by the display driver means in response to the control signal supplied from the display control unit, said display start signal having a delay time after the power control signal has supplied to the power source circuit; and

selecting the display driving voltages supplied from the power source circuit to supply to the flat display panel in response to the display start signal.

4. The method according to Claim 3, wherein the flat display panel module unit is arranged separately from the display control unit.

5. A flat display unit comprising:

a flat display panel for being driven in accordance with display driving voltages;

display driver means for selecting the display driving voltages supplied to said flat display panel, said display driver means comprising a logic circuit and a detection means for detecting a logic power voltage activating said logic circuit and for supplying a power control signal having a delay time after the detection of the logic power voltage; and

a display power source circuit for supplying the display driving voltages to said display driver means in response to the power control signal.

6. A flat display device comprising a flat display panel module unit and a display control unit for supplying control signals to control display of the flat display panel module unit,

said flat display panel module unit comprising:

a flat display panel driven in accordance with display driving voltages;

display driver means for selecting the display driving voltages supplied to said flat display panel and for supplying a power control signal having a delay time after a logic power voltage has been supplied to a logic circuit of said display driver means; and

a display power source circuit for supplying the display driving voltages to said display driving means in response to the power control signal,

wherein said display driver means starts the selection of the display driving voltages in response to a display start signal having a delay time after the power

control signal has supplied to said power source circuit.

7. (New) A display control device for controlling a display device driver circuit that drives a display device, and for controlling a display device power circuit that provides power to a display device driver circuit to cause a display on a display device, comprising:

a device that outputs to a display device power circuit a signal to initiate supply of power to cause a display on a display device, in response to an external display start signal; and

a device that outputs to a display device driver circuit a signal to initiate output of a drive signal from the display device driver circuit to a display device, after a first period of time has elapsed following output of the signal to initiate supply of power.

8. (New) A display control device for controlling a display device driver circuit that drives a display device, and for controlling a display device power circuit that provides power to a display device driver circuit to cause a display on a display device, comprising:

a device that outputs to a display power circuit a signal to initiate supply of power to cause a display on a display device, after a first period of time has elapsed following input of an external display start signal; and

a device that outputs to a display device driver circuit a signal to initiate output of a drive signal from the display device driver circuit to a display device, after a second period of time has elapsed following output of said signal to initiate supply of power.

9. (New) A display control apparatus comprising:

a display control device to control a display device power circuit that provides power to cause a display on a display device, comprising:

a device that outputs to a display device power circuit a

signal to initiate supply of power to cause a display on a display device, in response to an external display start signal; and

a display device driver circuit that initiates output of a drive signal to a display device, after a first period of time has elapsed following output of said signal to initiate supply of power.

10. (New) A display control apparatus comprising:

a display control device to control a display device power circuit that provides power to cause a display on a display device, comprising:

a device that outputs to a display device power circuit a signal to initiate supply of power to cause a display on a display device, after a first period of time has elapsed following input of an external display start signal; and

a display device driver circuit that initiates output of a drive signal to a display device, after a second period of time has elapsed following output of said signal to initiate supply of power.

11. (New) A display control apparatus for driving a display device, comprising:

a display device power circuit that initiates supply of power to cause a display on a display device, in response to an external display start signal; and

a display device driver circuit that initiates output of a drive signal to a display device after a first period of time has elapsed following the initiation of supply of power.

12. (New) A display control apparatus for driving a display device, comprising:

a display device power circuit that initiates supply of power to cause a display on a display device after a first period of time has elapsed following input of an external display start signal; and

a display device driver circuit that initiates output of a drive signal to said display device after a second period of time has elapsed following the initiation of supply of power.

Sub a1

13. (New) A method of controlling a display apparatus comprising a display control device, a display device that is driven by a display driving voltage, a display device driver unit that selects the display driving voltage that is to be supplied to the display device, and a display device power supply that supplies the display driving voltage to the display device driver unit in response to a power control signal, the method comprising:

a first step of receiving and processing input of a signal to instruct start of a display-on sequence;

a second step of supplying the power control signal to control power-on of the display device power supply;

a third step of supplying the display driving voltage to the display device driver unit from the display device power supply in response to the power control signal;

a fourth step of supplying to the display device driver unit a start signal to control start of causing a display on the display device; and

a fifth step of selecting by the display device driver the display driving voltage that is supplied to the display device.

14. (New) The display apparatus control method according to Claim 13, wherein the method advances to the first step after a logic voltage has been supplied to the display control device of the display apparatus.

Sub a2

15. (New) The display apparatus control method according to Claim 13, wherein the method advances to the fourth step after at least a first delay time has elapsed following the third step.

Sub a cnd.

16. (New) The display apparatus control method according to Claim 13, wherein the method advances to the second step after at least a first delay time has elapsed following the first step.

add a3

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